REMARKS

Claims 13-15 are all the claims pending in the application; each of the claims has been rejected.

An Amendment was filed in this application on December 21, 2006, followed by an RCE on January 25, 2007. In view of the RCE, Applicants understand that the amendment filed December 21, 2006, has been entered. Accordingly, the claims included herein assume entry of the amendments to the claims made December 21, 2006, and the further amendments made herein are new.

Applicants thank the Examiner and her supervisor for the helpful interview conducted in this application on February 2, 2007, and appreciate the courtesy shown therein.

No new matter has been added. Entry of the Amendment is respectfully requested.

I. Support for recitation of "different from and non-overlapping"

Applicants indicated in the Amendment filed December 21, 2006, that support for amendment of claims 13 and 14 to recite that (C) is performed using a different, non-overlapping region of the selected DNA molecule may be found in Example 1 of the application (see also Figure 1).

To further support the amendment, Applicants have the following additional comments. Example 1 (pages 15-17) of the application provides a detailed description of a preferred embodiment of the invention. As disclosed therein, the selected DNA molecule is a genomic region consisting of 900 nucleotides from a yeast strain (page 15, lines 21-22). Five portions of the selected DNA molecule were chosen, encompassing nucleotides 1-180, 181-360, 361- 540, 541-720, and 721-900 (page 16, lines 4-16). Thus, five different, non-overlapping portions of the selected DNA molecule were chosen. These five portions are each a "selected portion of the selected DNA molecule" as recited in claims 13 and 14. Figure 1 further clearly shows that each of the five selected portions of the selected DNA molecule is different and non-overlapping.

Thus, Applicants respectfully assert that the specification fully supports recitation of "different and non-overlapping" selected portions of the selected DNA molecule as recited in claims 13 and 14.

II. Support for recitation of "repeating"

During the telephonic interview held February 2, 2007, the Examiner indicated that additional discussion regarding the nature of the method being claimed, and the location of support for recitation of repeating the screening steps (as recited in (C) of claims 13 and 14) would be helpful.

To that end, Applicants first note that the pending claims are directed to a method for analyzing the expression of a gene. In particular, the novel method recited in the pending claims can be used to determine whether a particular portion of an organism's genome encodes a polypeptide (a "gene expression region"), or instead comprises non-coding DNA. The method requires knowledge of the sequence of the particular DNA molecule of interest. Briefly, one selects a portion of the selected DNA molecule to be analyzed, and then using primers based on the sequence of the selected portion of the selected DNA molecule, one performs an amplification reaction on RNA transcripts obtained from the organism. If an amplification product is obtained, one has established that the selected DNA molecule encodes a gene expression region. It is the screening for the presence of the RNA transcript, corresponding to the selected portion of the selected DNA molecule, that demonstrates that the selected DNA molecule encodes a gene expression region.

As to the *repetition* of the screening steps as recited in (C) of claims 13 and 14, Applicants respectfully contend that there is clear and sufficient support in the specification. Applicants first note that repetition of the screening of the RNA transcripts is a manner in which one can determine which of a number of different selected portions of a large selected DNA molecule encodes a gene expression region.

As described at pages 14-15 of the specification, the method recited in the pending claims can be performed on the entire genome of an organism, where the complete genomic sequence is known. Thus, the entire genome is the selected DNA molecule recited in the pending claims.

One does so by first conceptually dividing the selected DNA molecule into selected portions (i.e., selected portions of the genome), such as 200 nucleotide portions, and creates primers that corresponds to each of the selected portions. One then performs an amplification reaction using the different primer sets. When one uses at least two different primer sets, corresponding to at least two different selected portions of the selected DNA molecule, one has "repeated" the screening of the RNA transcripts for those that correspond to the selected portions of the selected DNA molecule. One may either "walk down" the selected DNA molecule, sequentially testing different portions of the selected DNA molecule, or one may simultaneously perform many amplification reactions using different primer sets corresponding to different portions of the selected DNA molecule. In either manner, one "repeats" the screening of the RNA transcripts for different selected portions of the selected DNA molecule.

While pages 14-15 exemplify the screening of an entire genome, Example 1 at pages 15-17 of the specification pertains to a much smaller selected DNA molecule. As disclosed therein, the selected DNA molecule comprising 900 nucleotides, and five portions of the selected DNA molecule were selected. The amplification reaction was performed for each of the five selected portions of the selected DNA molecule. Thus, Example 1 discloses repetition of the screening method on five different (and non-overlapping) selected portions of the selected DNA molecule, further providing support for the claims.

III. Conclusion

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,

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